RECEIVED
CENTRAL FAX CENTER
JUL 13 2006

Application No.: 10/635,424

Docket No.: JCLA11962-R2

REMARKS

Present Status of the Application

The Advisory Action still rejected pending claims 1, 3-7, 11 and 12. Briefly speaking, the process limitations in independent claims 1 and 11 do not make the products of claims 1, 3-7, 11 and 12 distinguishable from or non-obvious over the prior art (US 4,209,563 to Sisson, US 5,260,126 to Collier, and US 4,446,189 to Romanek). In response, Applicants submit the remarks below and respectfully request reconsideration of claims 1, 3-7 & 11-12.

Discussions of Patentability of Claims 1, 3-7 & 11-12

First of all, it is stressed that this invention is partly based on the discovery that for an elastic nonwoven fabric including elastomeric fibers and non-elastomeric fibers, increasing the nonelastomeric-fiber coverage of the elastomeric fibers can reduce blocking between the elastomeric fibers. Since the blocking is reduced, the separation resistance of two sheets can be equal to or less than the strength at 50% elongation as in independent claims 1 and 11, as described in page 17, line 9 to page 19, line 5. It is noted that Collier, Sisson or Romanek ***mentions nothing about the coverage of elastomeric fibers*** in an elastic nonwoven fabric and ***surely does not teach the importance of the coverage of elastomeric fibers*** to the anti-blocking effect.

The coverage of elastomeric fibers can be increased by 1) making the average diameter (Ad) of the non-elastomeric fiber smaller than that (Bd) of the elastomeric fiber to increase the relative surface area of the non-elastomeric fibers, ***as in the case of claim 1*** including the feature of "Bd/Ad≥25/18", or 2) using spinnerets each with a elastomeric resin spinning hole and a

nonelastomeric resin spinning hole thereon to mix the non-elastomeric fibers and the elastomeric fibers more uniformly (page 15, line 14 to page 16, line 12), ***as in the case of claim 11***. The following arguments are mainly based on the above two points.

In addition, because Romanek mentions nothing related to the above mentioned and later mentioned features of claims 1 and 11, it is not discussed hereafter.

For Novelty and Non-obviousness of Claims 1 & 3-7

It is noted that claim 1 includes a long non-elastomeric fiber but Collier uses a short one. It is also noted that "Bd/Ad≥25/18" is satisfied and the fibers are formed with a melt-blowing method in claim 1, but Sisson mentions nothing about "Bd/Ad" and forms fibers with other method. Please particularly note that ***the texture of an elastic nonwoven fabric formed with a melt-blowing method is different from that of one formed with Sisson's method***, for a melt-blowing method causes turbulence while Sisson' method positively and precisely controls each filament (col. 7, lines 19-53). For at least the above reasons, claim 1 and its dependent claims 3-7 are distinguishable from the prior art.

Claim 1 is also non-obvious over the prior art. Specifically, claim 1 is non-obvious

1) over Collier at least for including a long non-elastomeric fiber and the "Bd/Ad" range;
2) over Sisson at least for the "Bd/Ad" range and the fibers formed with melt-blowing; and
3) over Collier in view of Sisson at least for the "Bd/Ad" range and the non-obviousness of combining Collier with Sisson.

For point 1), Collier merely mentions the use of short staple non-elastomeric fibers ***but never suggests or implies use of long non-elastomeric fibers***, while the only one apparatus used in Collier cannot handle long non-elastomeric fibers. The feature of including a long non-elastomeric fiber is

no trivial modification of Collier's invention, for it improves the feeling and strength of the product when the long non-elastomeric fiber is formed with melt-blowing or spun-bonding, as described in page 14, lines 18-22. Meanwhile, though Collier mentions that the elastomeric fiber and the nonelastomeric fiber can be both microfibers, he mentions nothing about the coverage of elastomeric fibers and the ratio "Bd/Ad". Hence, ***in view of Collier***, one of ordinary skill in the art is not motivated to adjust "Bd/Ad" to satisfy "Bd/Ad≥25/18" and the effect of this feature as mentioned above is unpredictable.

For point 2), Sisson also mentions nothing about the coverage of elastomeric fibers or "Bd/Ad". Hence, ***in view of Sisson***, one of ordinary skill is not motivated to adjust the ratio to satisfy "Bd/Ad≥ 25/18" and the effect of the feature is unpredictable. Moreover, a melt-blowing method is known to cause air turbulence, while the filament forwarding in Sisson requires positive and precise control for each individual filament and hence has to positively draw each filament to the formation point (col. 7, lines 19-53). Hence, Sisson teaches away to use a melt-blowing method in production of an elastic nonwoven fabric. In other words, ***Sisson teaches away an elastic nonwoven fabric having a texture characterized by a melt-blowing method.*** However, the elastic nonwoven fabric of claim 1 has such a texture.

As for point 3), ***in view of Collier or Sisson***, one of ordinary skill is not motivated to adjust "Bd/Ad" to satisfy "Bd/Ad≥25/18" and the effect of this feature is unpredictable, as mentioned above. It is also non-obvious to combine Collier with Sisson and obtain the claimed combination of "*a long non-elastomeric fiber and a melt-blowing method*" in claim 1, according to the three criteria described in MPEP §706.02(j).

First, since long non-elastomeric fibers cannot be used in the only disclosed apparatus of Collier and a melt-blowing method cannot be used in Sisson, there is no suggestion or motivation to modify the references or to combine the reference teachings in a manner such that long non-elastomeric fibers made with a melt-blowing method are used. It is also noted that the teaching or suggestion to make the claimed combination is not found in Collier or Sisson, because Collier discloses only one apparatus that can merely handle short non-elastomeric fiber and none of the processes disclosed in Sisson uses a melt-blowing method.

Second, there is no reasonable expectation of success for using long non-elastomeric fibers made with a melt-blowing method in view of prior art, because long non-elastomeric fibers cannot be used in the disclosed method and apparatus of Collier and a melt-blowing method cannot be used in Sisson. Collier or Sisson does not provide reasonable expectation of success for the claimed combination, for Collier discloses no apparatus that can handle long non-elastomeric fiber and Sisson discloses no process that uses a melt-blowing method.

For at least the above reasons, Applicants respectfully submit that claim 1 and claims 3-7 dependent from claim 1 are non-obvious over the prior art.

For Novelty and Non-obviousness of Claims 11-12

It is noted that claim 11 includes a long non-elastomeric fiber but Collier uses a short one, while the advantage of including a long non-elastomeric fiber is mentioned above. It is also notes that the process limitation concerning the spinnerets in claim 11 makes the fabric have a texture ***different from and advantageous over*** that of Sisson's nonwoven fabric that is fabricated by spinning the two kinds of fibers with respective spinnerets and then bonding them, ***as explained later***. In addition, it is non-obvious to combine Sisson with Collier, as mentioned above, while the

process limitation concerning the spinnerets in claim 11 and the advantageous texture resulting from the process limitation both cannot be obtained from a hindsight combination of Sisson and Collier, ***as explained later.*** For at least the above reasons, claims 11 and 12 are distinguishable from and non-obvious over the prior art.

The reasons why the texture of the elastic nonwoven fabric of claim 11 is different from and advantageous over that of Sisson's fabric are given below. As shown in FIG. 6, to fabricate Sisson's fabric, two spinnerets 36 and 38 are used to spin the elastomeric resin and the non-elastomeric resin respectively, the monofilament streams 40 and 42 obtained are laminated with 40 arranged lower, and air flow is used to randomize the fiber arrangement. Though the details of this mechanism are not clearly disclosed in Sisson, it is quite sure that the two monofilament streams with certain thicknesses are laminated under a certain tension as being drawn by rollers like 134 and 132, such that one end of each streams *is temporarily fixed* by the rollers *limiting the degree of fiber randomization in the thickness direction of the fabric.* This limitation is reflected by a difference of elastomeric fiber concentration between the laminated layers of the fabric. FIGs. 4-5 being two photographs of Sisson's elastic nonwoven fabrics do not show that the elastomeric fiber concentration in the fabrics is uniform in the thickness direction thereof.

Moreover, since in Sisson the fibers are randomized continuously in a laminate of two or more layers of streams (three/five layers in Example I/II), the fibers in the upper-most layer cannot be moved sufficiently to uniformly randomize with those in the bottom layer.

On the other hand, since the fibers in the fabric of claim 11 is randomized not with the above mechanism but with spinnerets each having both an elastomeric resin spinning hole and a non-elastomeric resin spinning hole thereon, the fibers are well randomized ***as being discharged***

from the spinning holes. Hence, as compared with Sisson's fabric, the texture of the fabric of claim 11 is different and has a higher coverage for the elastomeric fibers ***due to better fiber randomization*** to cause less fiber blocking and lower separation resistance of two sheets. Hence, claim 11 is distinguishable from as well as non-obvious over Sisson. Moreover, because the elastomeric fiber concentration in the surface layer of Sisson's fabric is higher, more blocking occur between two sheets of the same *making the sheet separation resistance* ***larger than*** *the strength at 50% elongation*, as contrary to the case of claim 11.

Besides, Sisson mentions a method of stretching and releasing the laminated filament streams for fiber randomization (Abstract). However, since in the relaxation the elastomeric fibers forming one layer of the fabric are recovered almost 100% in the length, the degree of orientation randomization of the elastomeric fibers is insufficient as compared with the non-elastomeric fibers. That is, the elastomeric fibers in the nonwoven fabric obtained still have good alignment in the flowing/drawing direction of the filament streams. Hence, when the nonwoven fabric is to be elongated in the longitudinal/drawing direction thereof, the elastic resistance is larger because most elastomeric fibers are aligned in the direction, so that a larger force is needed from the user making the elastic nonwoven fabric feels tough. On the other hand, for the fibers in the fabric of claim 11 are randomized via the special spinnerets, the elastomeric fibers are well randomized in two dimensions so that the fibers oriented in the drawing direction are less than those in Sisson's fabric. Thus, a smaller force is needed to elongate the fabric, so that the elastic nonwoven fabric has a favorable feeling to the user.

In addition, combining Collier with Sisson has been indicated to be non-obvious in the above arguments for claims 1 and 3-7. Moreover, the process limitation of the spinnerets in claim 11 and

the advantageous texture caused by the same cannot be obtained even from a hindsight combination of Sisson and Collier, for Collier either does not suggest or imply the process limitation and Collier's fabric including long elastomeric fibers with particulate-like ***short*** non-elastomeric fibers mixed therein is quite different from the fabric of claim 11 in the texture.

New Claim

New claim 13 is added, which depends on claim 1.

CONCLUSION

For at least the foregoing reasons, it is believed that pending claims 1, 3-7 and 11-13 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,
J.C. PATENTS

Date: 7/13/2006

Jiawei Huang
Registration No. 43,330

4 Venture, Suite 250
Irvine, CA 92618
Tel.: (949) 660-0761
Fax: (949)-660-0809